

REMARKS

Reconsideration of the above-identified patent application in view of the amendments above and the remarks following is respectfully requested.

Claims 1-16 are in this case. Claims 1-16 have been rejected under § 102(b). Independent claims 1 and 11 have been amended.

The claims before the Examiner are directed toward a system and method to provide feedback to an operator of a device having a delay in the feedback path. The operator is provided with a display device operative to display an image from a camera located on the device and, via a control device such as a joystick, the operator issues commands to the device that can include commands to move the device or to move the camera relative to the device or to zoom the lens of the camera. To prevent problems associated with feedback delay, such as a tendency to oversteer, on the one hand, or to be overly cautious and slow, on the other hand, the present invention displays a predicted image on the operator's display that closely approximates the view that would be expected from the camera if there were no feedback delay.

§ 102(b) Rejections

The Examiner has rejected claims 1-16 under § 102(b) as being anticipated by Rahim, US Patent No. 5,155,683 (henceforth, "Rahim '683"). The Examiner's rejection is respectfully traversed.

Applicant respectfully notes that Applicant's arguments presented in response to previous Office Actions, especially regarding the presentation to the operator, despite the time delay, of a moving image that shows a prediction of the present view from the

remotely controlled device as if there were no time delay, rather than presenting a delayed image with superimposed graphics that aid the operator in mentally assessing the progress of the remotely controlled device, as in Rahim '683, still stand.

While continuing to traverse the Examiner's rejection, Applicant has, in order to expedite prosecution of the application, further amended independent claims 1 and 11 so as to include language making it absolutely clear that according to the method and system of the present invention the second image corresponds to a prediction of the actual image that would be viewed by the camera mounted on the remotely controlled device at the present time, and not merely an old image with superimposed graphical aids. .

Support for these amendments can be found in the following quotation from a portion of paragraph [0030] of the present application, as displayed on the USPTO website (Publication Number 2006/0187224):

Reference is now made to FIG. 2, which is a view of display 12 showing an image 30 of a predicted view from device 14 due to a movement command. Remotely operated system 10 is configured such that image 30 of the predicted view from device 14 at the second position is displayed on display 12 at substantially the same time that a movement command is issued. Therefore, image 30 is displayed prior to the operator receiving real feedback of the actuated movement command. Image 30 is based upon at least part of image 28 (FIG. 1). It will be appreciated by those skilled in the art that as movement controller 16 is actuated, the image displayed on predictive display 12 is altered to reflect the current predicted view from camera 18 after the movement command is complete. The current predicted view from camera 18 after the movement command is complete, is formed by manipulating image 28, for example by moving or scaling or rotating image 28, as appropriate, such that, the center of an image of a view from camera 18 at the second position corresponds to the center of predictive display 12. Scaling of image 28 is necessary where forward and reverse movement commands are issued. Other manipulation of image 28 is performed to reflect the desired results. Scaling of image 28 is illustrated with reference to FIG. 5. Therefore, as movement controller 16 is actuated, the image displayed by predictive display 12 gradually changes from image 28 to image 30. Therefore, there is a plurality of images which are displayed on predictive display 12, which represent the

actuating of movement controller 16 in order to move device 14 from the first position to the second position. In the example of FIG. 2, the movement command given by the operator to move device 14 from the first position to the second position was to turn device 14 in a left direction. Therefore, in this example, the right portion of image 30 is formed by using most of image 28 except for part of the right portion of image 28. The left portion of image 30 has a blank "filler" section 32 indicative of image data which cannot be derived from image 28. It should be noted that as the operator moves the steering control of movement controller 16 to the left, image 30 will change to include gradually less of the right portion of image 28 and more of "filler" section 32. It will be appreciated by those skilled in the art that other operations including lateral, rotational, scaling and other image manipulations may be performed by processor 24 on image 28 to create image 30 depending on the desired movement command. Additionally, image 30 may be created by processor 24 using advanced image processing techniques to produce an image which is based upon image 28 as well as other images of prior views stored by remotely operated system 10. It should be noted that image 30 is created by altering image 28 to reflect the predicted view from camera 18 when device 14 is at the second position and not by superimposing an arrow or vector on image 28 to show where the second position is. (emphasis added)

The above citation from the specification of the present application clearly teaches presentation to the operator of an image corresponding to a prediction of the image that would be seen by the camera at the present time. The limitations added to currently amended claims 1 and 11 now make it absolutely clear that the second image is a predicted image of the present view from the camera, and not merely a delayed image from the camera with added graphics, as taught by Rahim '683.

Amended independent claims 1 and 11 now feature language which makes it absolutely clear that the present invention provides for a predictive display having features not hinted at or suggested in Rahim '683. Applicant believes that the amendment of the claims completely overcomes the Examiner's rejections on § 102(b) grounds.

Amendments to the Specification

No new matter has been added.

In view of the above amendments and remarks it is respectfully submitted that independent claims 1 and 11, and hence dependent claims 2-10 and 12-16 are in condition for allowance. Prompt notice of allowance is respectfully and earnestly solicited.

Respectfully submitted,



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